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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/771,056

02/03/2004

John Tadich

MLP 7226

1530

321 7590 10/02/2007

SENNIGER POWERS  
ONE METROPOLITAN SQUARE  
16TH FLOOR  
ST LOUIS, MO 63102

EXAMINER

PAINTER, BRANON C

ART UNIT

PAPER NUMBER

3635

NOTIFICATION DATE

DELIVERY MODE

10/02/2007

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspatents@senniger.com

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/771,056		TADICH, JOHN	
	<b>Examiner</b>		<b>Art Unit</b>	
	Branon C. Painter		3609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The requirement that the circular web member is "received between the side walls" is in direct contradiction to the requirement in amended claim 1 (from which claim 10 depends) that the brace have "at least one first side wall projecting outwardly from the base in a direction away from the one web member." It is impossible for a brace to have side walls that both project away from a web member and also receive that web member. As written, this contradiction precludes claim 10 from further examination.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3609

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

1. Claims 1, 3-5, 7, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pellock (U.S. Patent No. 5,946,879) in view of Rolf (U.S. Patent No. 6,148,579).

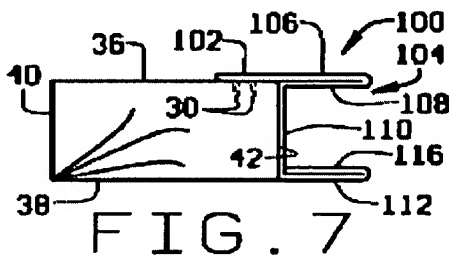
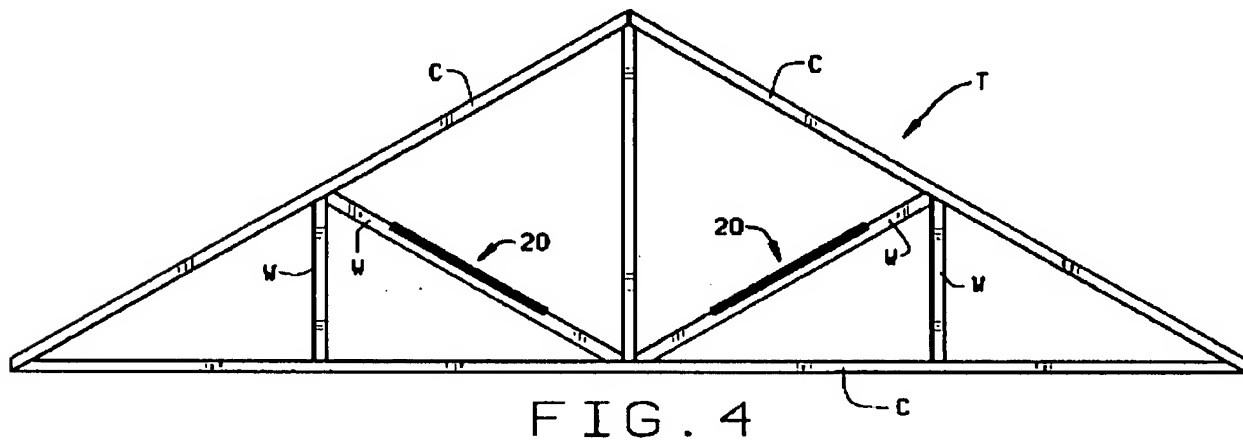
a. Pellock discloses a truss brace including:

- i. "a plurality of structural members arranged in a generally flat configuration, the structural members including front sections defining a front surface of the truss and back sections defining a back surface of the truss..." ("chord members" C, Fig. 4).
- ii. "...a web including at least one web member extending between two structural members generally between the front and back surfaces of the truss...the web member having a front section and an opposite back section facing opposite directions...and having lateral sections located between the front and back surfaces and facing opposite directions substantially between the front and back sections..." ("web members" W, Fig. 4).

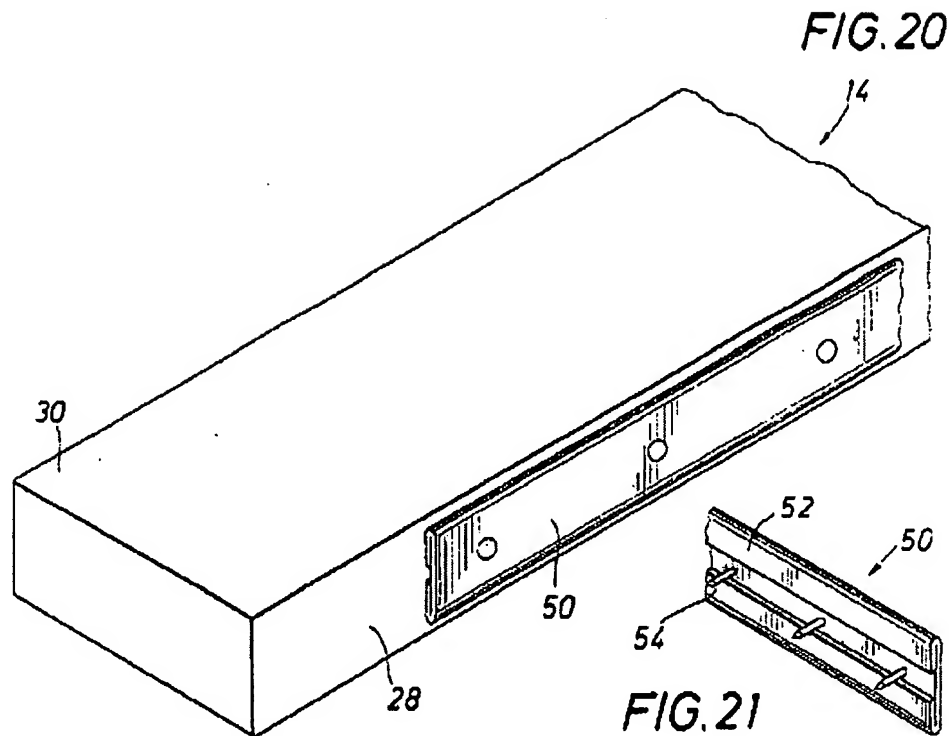
- iii. "a brace having a base engaging the web member at one of said lateral sections, and at least one first side wall projecting outwardly from the base in a direction away from the one web member...the brace being located between the front and back surfaces..." ("brace" 100, Fig. 7).
  - iv. "...at least one fastener securing the brace to the web member..." ("teeth" 30, Fig. 7).
  - v. While integral teeth are shown in the figures, it is disclosed that "alternatively, holes may be provided on the flange for mounting the base" (Abstract).
- b. Pellock does not expressly disclose a fastener penetrating the web member at a lateral section, or a web member whose front and back sections remain free of fasteners.
- c. Rolf discloses a brace fastened to the lateral section of a web member ("side brace" 50, Fig. 20). Rolf further discloses that "the means for attachment include, but are not limited to, nail-like teeth, speed prong teeth, slotted teeth, and cut teeth, as well as nails, screws or fasteners, and the like" (column 2, lines 63-66). Rolf shows that fastening means on the lateral side of a brace is an equivalent structure known in the art. Therefore, because these two fastening means were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute front side fastening means for lateral side fastening means.

Art Unit: 3609

- d. Pellock and Rolf are analogous art because both are from the field of endeavor of truss bracing.
- e. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the brace of Pellock by using non-integral fasteners instead of integral teeth, and attaching the brace to the lateral side of the web member instead of the front face, as shown by Rolf.



Reproduced from U.S. Patent No. 5,946,879



Reproduced from U.S. Patent No. 6,148,579

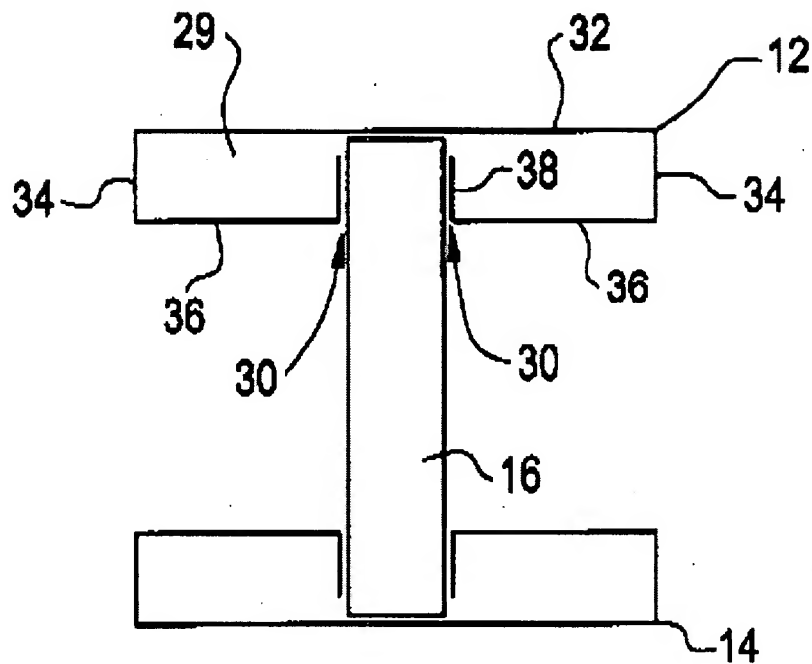
3. Regarding claim 3, Pellock discloses rectangular web members ("The web members typically have a generally rectangular cross-section," column 1, lines 51-53).
4. Regarding claim 4, Pellock discloses a brace with fastener holes ("alternatively, holes may be provided on the flange for mounting the base," Abstract).
5. Regarding claim 5, Rolf discloses non-integral fasteners. ("nails or the like" 54, Figure 21).
6. Regarding claim 7, Pellock discloses a brace having a generally flat base and a pair of opposite first side walls ("second section" 108 and "fourth section" 112, Fig. 7).

Art Unit: 3609

7. Regarding claim 12, Pellock discloses a second side wall in flush engagement with either the front or back section of the web member, and the remainder of the brace being within the thickness confines of the web member (second side wall includes "flange" 102 and "first section" 106, Fig. 7).
8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pellock (U.S. Patent No. 5,946,879) in view of Rolf (U.S. Patent No. 6,148,579) as applied to claims 1, 3-5, 7, and 12 above, and further in view of Quiring et al. (U.S. Patent No. 6,085,468).
  - a. Pellock in view of Rolf discloses a truss as set forth above.
  - b. Pellock in view of Rolf does not expressly disclose that the web member has a cross-sectional shape that is circular.
  - c. Quiring et al. discloses a truss "comprising tubular upper and lower truss members separated by a continuous tubular web" (Abstract), wherein "the tubing may be of circular or rectilinear cross-section" (column 2, lines 55-56). The use of a circular cross-section as taught by Quiring et al. is more economical than a rectangular cross-section.
  - d. The examiner further notes motivation for combining the references as set forth in Quiring et al.: "the tubing may be of circular or rectilinear cross-section, however a circular cross-section is generally the most economical" (column 2, lines 55-57).
  - e. Pellock in view of Rolf and Quiring et al. are analogous art because they are both from the same field of endeavor of truss design.



- f. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use web members of circular cross-section in order to make the truss more economical.
- 9. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pellock (U.S. Patent No. 5,946,879) in view of Rolf (U.S. Patent No. 6,148,579) as applied to claims 1, 3-5, 7, and 12 above, and further in view of Ehrenkrantz (U.S. Patent No. 6,161,361) and Melland (U.S. Patent No. 4,862,667).
  - a. Rolf discloses a truss as set forth above.
  - b. Rolf does not expressly disclose that the side walls have inwardly turned ends [claim 8], or that the said ends turn 180 degrees [claim 9].
  - c. Ehrenkrantz discloses a metal reinforcing flange having a flat base ("outwardly facing portion" 32, Figure 4), a pair of opposite side walls extending from the base generally transverse to the base ("pair of opposed side portions depending from the outwardly facing portion" 34, Figure 4) [claim 7], inwardly turned ends ("a pair of inwardly facing portions depending from respective side portions" 36, Figure 4) [claim 8], and ends of the side walls which turn about 180 degrees ("support lip" 38, Figure 4) [claim 9]. The combined use of wood web members and metal braces such as those disclosed in Ehrenkrantz adds strength, as taught by Melland.

**FIG. 4**

Reproduced from U.S. Patent No. 6,148,579

- d. The examiner further notes motivation for combining the references as set forth in Melland: "Wood is excellent when used in bending (compression) and steel is excellent when used in tension. The applicant's unique design combines both to achieve the strongest composite unit available based on load-to-span and also the most economical panel available" (column 8, lines 61-66).
- e. Pellock, Rolf, Ehrenkrantz, and Melland are analogous art because they are all from the same field of endeavor of support structures.

- f. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the cross-section provided by Ehrenkrantz to construct a variation of the brace disclosed in Rolf. Furthermore, it would be obvious to make these modifications in order to increase the strength and economy of the truss.

10. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rolf (U.S. Patent No. 6,148,579) as modified by Ehrenkrantz (U.S. Patent No. 6,161,361) and Melland (U.S. Patent No. 4,862,667), as applied to claims 7-9 above, and further in view of Pellock (U.S. Patent No. 5,946,879).

- a. Rolf, as modified by Ehrenkrantz and Melland, discloses a truss as set forth above.
- b. Rolf does not expressly disclose that the brace has a generally flat base and a pair of opposite side walls extending from the base generally transverse to the base, or that the side walls of said brace extend from the base and project outward from the web member.
- c. Pellock discloses a metal reinforcing brace having a flat base ("third section...forming the back of the 'C'" 110, Figure 7) and a pair of opposite side walls extending from the base generally transverse to the base ("second section...forming the top of the 'C'" 108 and "a fourth section...forming the bottom of the 'C'" 112, Figure 7). In addition the brace is shown projecting outwardly from the web member (Figure 7). While integral teeth are shown

in the figures, it is disclosed that "alternatively, holes may be provided on the flange for mounting the base" (Abstract).

- d. Rolf as modified by Ehrenkrantz and Melland, and further in view of Pellock, discloses the claimed invention except that the fastening means are located on the front side instead of the lateral side. Rolf shows that fastening means on the lateral side of a brace are an equivalent structure known in the art. Therefore, because these two fastening means were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute front side fastening means for lateral side fastening means.
- e. The examiner further notes motivation for combining the references as set forth in Melland: "When the brace is attached to a web member, the web member better resists bending and flexing out of the plane, and thus a truss made with web members provided with the brace maintains its designed strength without the need for labor intensive, time consuming cross bracing or stiffening at the construction site" (column 1, lines 55-60).
- f. Rolf and Pellock are analogous art because they are both from the same field of endeavor of truss strengthening.
- g. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to apply the cross-section provided by Pellock (Figure 7) to the bracing method disclosed in Rolf (Figure 20) by using non-integral

fasteners instead of integral teeth, and attaching the brace to the lateral side of the web member instead of the front face.

### ***Response to Arguments***

11. Applicant's arguments filed 08/07/07 have been fully considered but they are not persuasive.
12. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Pellock states that "where the brace 20 is used on metal web members, there may be mounting holes on the flange for securing the brace 20 on the metal web member with self-tapping screws" (column 3, lines 49-52). This suggests that an aperture allowing a screw or other fastener to pass through is equivalent to the teeth shown in Fig. 7. While Pellock does state that an advantage of using integrally formed teeth is the convenience of installing the braces at the same time as nailing plates by pressing or rolling, he also discloses the use of holes and fasteners as discussed above. Furthermore, Rolf teaches the use of apertures with nails, screws, or the like to fasten a brace onto the lateral side of a truss web

member. Since Pellock and Rolf both disclose braces with holes for attaching the brace to a web member using fasteners, the combination would have rendered it obvious to one of ordinary skill in the art to attach the brace on the lateral side of the web member. Fasteners penetrating lateral sections as taught by Rolf does not teach away from Pellock, since Pellock teaches the use of fasteners such as screws that cannot be attached simultaneously with nailing plates.

13. The examiner again notes the indefiniteness of claim 10 due to the amendments made by applicant. The requirement that the circular web member is "received between the side walls" is in direct contradiction to the requirement in amended claim 1 (from which claim 10 depends) that the brace have "at least one first side wall projecting outwardly from the base in a direction away from the one web member." It is impossible for a brace to have side walls that both project away from a web member and also receive that web member. As written, this contradiction precludes claim 10 from further examination.

### ***Conclusion***

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
15. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

Art Unit: 3635

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Branon C. Painter whose telephone number is (571) 270-3110. The examiner can normally be reached on Mon-Fri 7:30AM-5:00PM, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on (571) 272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3635

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Richard Chilcot  
Supervisory Patent Examiner  
Art Unit 3635

Branon Painter  
09/14/2007



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SUPERVISORY PATENT EXAMINER